

ABSTRACT

HIGH POWER AMPLIFIER AND CHASSIS

A power amplifier assembly combines a single printed circuit board with a housing for providing isolation between subcircuits of the circuit board. The printed circuit board is provided with four conductive layers and contains a power supply subcircuit, an upconverter subcircuit, a monitor and control subcircuit, a low power gain subcircuit, and a high power gain subcircuit. The printed circuit board is further provided with plated-through vias in an isolation path which, in conjunction with internal chassis lid walls, serves to increase electromagnetic and radio frequency isolation between subcircuits on the printed circuit board.

1. A power amplifier assembly comprising a single printed circuit board with a housing for providing isolation between subcircuits of the circuit board. The printed circuit board is provided with four conductive layers and contains a power supply subcircuit, an upconverter subcircuit, a monitor and control subcircuit, a low power gain subcircuit, and a high power gain subcircuit. The printed circuit board is further provided with plated-through vias in an isolation path which, in conjunction with internal chassis lid walls, serves to increase electromagnetic and radio frequency isolation between subcircuits on the printed circuit board.